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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,974	03/23/2004	Ali Shajii	56231-455 (MKS-102CN)	2319

7590 12/13/2004

McDermott, Will & Emery
28 State Street
Boston, MA 02109-1775

EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,974

Applicant(s)

SHAJII ET AL.

Examiner

Ramesh Krishnamurthy

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26 - 43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26 - 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/23/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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This office action is responsive to communications filed 08/06/2004.

Claims 26 – 43 are pending.

It is noted that page 1 of the specification does not include the names of the two inventors Clark and Smith added to the declaration. Appropriate correction is required.

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 26 – 31 and 34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,712,084. Although the conflicting claims are not identical, they are not patentably distinct from each other because the device corresponding to claim 6 essentially outputs a mass flow rate that is close to the set value and thereby ensures a substantially constant flow from the outlet. Since the device of claim 6 is not claimed to maintain such constant mass flow rate subject to a condition, the flow rate is taken here to be constant under all conditions including that corresponding to fluctuations in pressure of a supply gas.

It is noted here that the limitation of "constant flow" and "substantially constant flow" are taken here to mean that the flow is constant with respect to a set point and further such an interpretation is the only way that the disclosure as originally filed would support these limitations in the new claims 26 – 43.

3. Claim 32 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of U.S. Patent No. 6,712,084.

4. Claim 33 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 8 of U.S. Patent No. 6,712,084.

5. Claims 35, 36, 40 and 43 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 19 of U.S. Patent No. 6,712,084 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the method corresponding to claim 19 of the '084 patent essentially outputs a mass flow rate that is close to the set value and thereby ensures a substantially constant flow from the outlet. Since the device of claim 6 is not claimed to maintain such constant mass flow rate subject to a condition, the flow rate is taken here to be constant under all conditions including that corresponding to fluctuations in pressure of a supply gas.

6. Claims 37 and 38 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the combination of claims 14 and 19 of U.S. Patent No. 6,712,084 B2.

The step of sensing the temperature of the gas within the volume provides an additional measurement for the purpose of better defining the thermodynamic state of

the gas since it is well known that with the knowledge of at least two properties of a gas, equation of state could be used to determine to define the thermodynamic state of the gas.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in method of claim 19 the step of sensing the temperature of the gas within the volume as recited in claim 14 of '084 patent, for the purpose of better defining the thermodynamic state of the gas.

7. Claim 39 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the combination of claims 15 and 19 of U.S. Patent No. 6,712,084 B2.

The step of computing the time derivative of the pressure within the volume would provide a measure of the compensation to be made to the sensed flow.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the method of claim 19, the step of computing the time derivative of the pressure within the volume, as recite din claim 15, for the purpose of providing a measure of the compensation to be made to the sensed flow at inlet to the controller.

8. Claim 41 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the combination of claims 20 and 19 of U.S. Patent No. 6,712,084 B2.

The step of normalizing the time derivative of the pressure within the volume provides a measure of the compensated flow rate in terms of flow rate under standard conditions.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the method of claim 19, the step of normalizing the time derivative of the pressure within the volume, as recited in claim 20 for the purpose of providing a measure of the compensated flow rate in terms of flow rate under standard conditions.

9. Claim 42 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the combination of claims 21 and 19 of U.S. Patent No. 6,712,084 B2.

The step of normalizing the time derivative of the pressure within the volume provides a measure of the compensated flow rate in terms of flow rate under standard conditions.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the method of claim 19, the step of normalizing the time derivative of the pressure within the volume, as recited in claim 21 for the purpose of providing a measure of the compensated flow rate in terms of flow rate under standard conditions, using a simplified calculation.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is

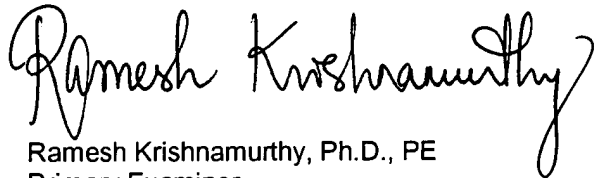
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(571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene L. Mancene, can be reached on (571) 272 – 4930. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 – 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Ramesh Krishnamurthy". The signature is fluid and cursive, with the first name "Ramesh" and last name "Krishnamurthy" clearly distinguishable.

Ramesh Krishnamurthy, Ph.D., PE
Primary Examiner
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